

# Rhodora

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## NOTES ON TREES AND SHRUBS OF SOUTHEASTERN NORTH AMERICA.

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DURING the summer of 1921 *Viburnum densiflorum* Chapman and *Quercus hybrida* (Chapman) Small were collected in Newton County, Texas. This extends the distribution of the *Viburnum* 400 miles westward (hitherto southern Alabama) and that of the oak 300 miles westward (hitherto southern Mississippi). These plants were growing under what would seem to be the same conditions as in the type locations in northwestern Florida, the *Viburnum* on the edge of small sandy hummocks in longleaf pine forests, and the oak on dry sand bluffs near or bordering streams. Since the name for this oak proposed by Small is already occupied it is suggested on account of its habitat that it be called

**QUERCUS arenicola** n. n. *Q. hybrida* (Chapman) Small, Fl. S. E. U. S. Ed. 1, 350 (1903), not *Q. hybrida* Bechst., Forstbot. Ed. 5, 211 (1829); nor *Q. hybrida* Brot. Fl. Lusit. 2:31 (1804); nor *Q. hybrida* Houba, Chên. de l'Am. Sept. 310 t. (1887). This oak is strongly marked in its characters, although it is not recognized by Sargent in his manual. Notwithstanding its slightly drooping lower branches at a distance it resembles and almost rivals in beauty of foliage *Q. laurifolia* Mx., from which, however, and from *Q. obtusa* Ashe it is separated by having much smaller fruit (acorns only 9-12 mm. thick and much constricted at base), and extremely flat shallow cups with very small scales; while from narrow-leaved forms of *Q. nigra* L. it is separated by the prevail-

ingly broadly oblanceolate leaves, which except on vigorous shoots are entire and acute. The leaves when entire resemble those of *Q. laurifolia*, although when 3-notched on vigorous shoots they are characteristic. Many of the trees in eastern Texas and adjacent parts of Louisiana have only entire foliage, and for such, which without the distinctive fruit are with difficulty separated from large-leaved forms of *Q. laurifolia*, there is suggested the name:

*Q. ARENICOLA* **integra** n. var. This differs from the type in having all the leaves on the tree entire; fruit as in type. Sandy bluffs along Sabine River, Texas, and Louisiana (type from Haddon Ferry, La. No. 1100).

*QUERCUS* **OBTUSA** (Willd.) Ashe. *Torreyia* **18**: 4, 72 (May 8, 1918.) *Q. hybrida* (Mx.) Ashe *Proc. Soc. Am. For.* **11**: 1; 88 (1916) not *Q. hybrida* (Chapman) Small. *Q. rhombica* Sarg. *Bot. Gaz.* **65**: 5, 430 (May 15, 1918). *Q. aquatica* var. *laurifolia* (Mx.) Houba, op. cit. 307 (1887). Houba gives an excellent illustration showing characteristic foliage of this tree, but mistakes it for the typical *laurifolia*. This tree is common throughout the entire coastal plain region of the Southern States and has been generally confused with *Q. laurifolia*. In Texas it occurs as far inland as Harrison County, in Louisiana to Sabine Parish and in Alabama as far north as Tuscaloosa, where it has been extensively planted as a shade tree and where it is regarded as being *Q. laurifolia* Mx. It seems to be as distinct from *Q. laurifolia* in southern Louisiana where the two are frequently associated as it is in Georgia and North Carolina. It is locally esteemed for its timber which is regarded as equal to that of *Q. laurifolia*, the best of the water oak group.

*Q. OBTUSA* **obovatifolia** (Sarg.) n. c. *Q. rhombica* var. *obovatifolia* Sarg. l. c. Specimens of this variety, which differs from the type only in its spatulate leaves with rounded apices, were noted in Caldwell Parish, Louisiana. On one specimen the acorns were oblong in place of ovoid.

*QUERCUS* **moultonensis** n. n. *Q. hybrida*, Houba, *Chênes de l'Am.* Sept., 310 (1887). *Q. phellos* L. × *Q. shumardii* Buckl. A number of fine specimens of this were noted in the Moulton Valley of the Tennessee River in Lawrence County, Ala., where both of the supposed parents are common. The leaf blades are oblong, with 5-7 mostly entire spreading or ascending lobes, and with tuft of pubescence in

the axils of the veins, such as are characteristic only of *shumardii*. The fruit while only slightly larger than that of *phellos* has a much deeper and thicker cup with large scales, W. W. A. No. 1080. The cups in this collection are not quite so pointed at base as figured by Houba, but there is considerable variation in *shumardii* in this respect, and there is a yet wider variation in hybrids. Houba's reference to the tufts of pubescence in the axils of the veins points only to *shumardii* as one parent; while only *phellos* as the other parent would determine glabrous foliage in connection with the narrow outline.

ACER BARBATUM **sinuosum** n. c. *A. sinuosum* Rehd., T. and S. 2: 255 (1913). This form has been found in the Wichita Mountains, Comanche County, Oklahoma, thus extending its distribution more than 300 miles north of the type and hitherto only recorded locality. Rehder has recently reduced it to a varietal status and the material from the Wichita Mountains confirms this disposition by more clearly indicating the relationship of *sinuosum* to *barbatum*. In the Wichita Mountain specimens the leaves are glaucous beneath as in *barbatum* and have the customary leaf form of *barbatum*, there being three prominent lobes with parallel sides, 3-notched at the tips. The first pair of nerves also rises from the petiole and not from the second pair. However, on these same trees the upper leaves have 3 subentire triangular lobes as described for *sinuosum*. The only difference between *sinuosum* and *barbatum* Mx. (*A. floridanum* (Chap.) Pax.) is the exposure of the nerves of the second pair of lobes at the point where they join the petiole and the somewhat stouter bright red-brown twigs.

QUERCUS NIGRA **heterophylla** n. c. *Q. aquatica* var. Aiton, Hort. Kew. Ed. 2, 5: 290 (1813). This differs from the type only in the leaves especially those on vigorous shoots, which are deeply and irregularly 3-5-lobed, some of the divisions being ligulate, 5-8 cm. long, 1-2 cm. wide, acute obtuse or even rounded at the ends. On the Atlantic Coast an occasional shoot or rarely a tree occurs having such foliage. In western Louisiana and eastern Texas, however, many trees occur on which most of the foliage is of this character. It is with some doubt that Aiton's name is taken up but his description seems to apply very well to this form.